

IN THE CLAIMS

1-36. (cancelled)

37. (original) A spinal surgical instrument for distracting a disc space, comprising:
a shaft extending between a proximal end and a distal end; and
an inflatable portion adjacent said distal end, said inflatable portion having a reduced size configuration for insertion into the disc space and an enlarged inflated configuration, wherein when in said inflated configuration said inflatable portion defines an upper vertebral endplate contacting surface and an opposite lower vertebral endplate contacting surface, each of said upper and lower vertebral endplate contacting surfaces having a vertebral endplate contacting area in the range of 0.1 square inches to 0.5 square inches.

38. (original) The instrument of claim 37, wherein said shaft defines an inflation lumen in communication with said inflatable portion.

39. (original) The instrument of claim 37, wherein each of said vertebral endplate contacting surfaces has an oval shape.

40. (original) The instrument of claim 37, wherein each of said vertebral endplate contacting surfaces has a circular shape.

41. (original) The instrument of claim 37, wherein each of said vertebral endplate contacting surfaces has a generally rectangular shape.

RESPONSE TO RESTRICTION AND ELECTION REQUIREMENT

Serial No. 10/706,789

Attorney Docket: 4002-3449/PC466.02

Page 2 of 13

42. (original) The instrument of claim 37, wherein each of said vertebral endplate contacting surfaces has a first contacting node and a second contacting node and said inflatable portion includes a concave surface extending between said first and second contacting nodes.

43. (original) The instrument of claim 42, wherein when in said inflated configuration said inflatable portion is sized to contact vertebral endplates adjacent the disc space and restore the disc space to a desired disc space height, said inflatable portion is further sized and shaped in the anterior, posterior and lateral directions to occupy the disc space with a void formed between the inflatable portion and an inner wall of an annulus surrounding the disc space annulus.

44-47. (canceled)

48. (previously presented) The instrument of claim 37, further comprising a channel for delivery of a material in a first condition about said inflatable portion when said inflatable portion is in said inflated configuration in the disc space, said material being changeable to a second condition after delivery.

49. (previously presented) The instrument of claim 48, wherein said channel comprises a portion of a cannula separable from said shaft.

50. (previously presented) The instrument of claim 48, wherein said channel comprises a portion of said shaft.

RESPONSE TO RESTRICTION AND ELECTION REQUIREMENT
Serial No. 10/706,789
Attorney Docket: 4002-3449/PC466.02
Page 3 of 13

51. (previously presented) The instrument of claim 48, wherein said material comprises a bone cement, said bone cement being flowable in said first condition and curable to obtain a solid body between upper and lower vertebral endplates adjacent the disc space in said second condition.

52. (previously presented) The instrument of claim 37, wherein in said inflated configuration said inflatable portion includes a center cylindrical portion extending along vertebral endplates adjacent the disc space and opposite frusto-conical portions tapering from said center cylindrical portion.

53. (previously presented) The instrument of claim 52, wherein each of said frusto-conical portions includes a first frusto-conical portion adjacent said cylindrical portion and a second frusto-conical portion tapering from said first frusto-conical portion away from said cylindrical body portion, said first frusto-conical portions each defining a portion of said upper and lower vertebral endplate contacting surfaces.

54. (previously presented) The instrument of claim 37, wherein in said inflated configuration said inflatable portion includes a cylindrical shape extending between the vertebral endplates and circular vertebral endplate contacting surfaces at opposite ends thereof.

RESPONSE TO RESTRICTION AND ELECTION REQUIREMENT

Serial No. 10/706,739

Attorney Docket: 4002-3449/PC466.02

Page 4 of 13

55. (previously presented) The instrument of claim 37, wherein in said inflated configuration said inflatable portion includes a cylindrical shape extending along the vertebral endplates and oval vertebral endplate contacting surfaces along opposite sides thereof.

~~55.~~ 56. (currently amended) The instrument of claim 37, wherein in said inflated configuration said inflatable portion includes a spherical shape and circular vertebral endplate contacting surfaces on opposite sides thereof.

~~56.~~ 57. (currently amended) A spinal surgical system, comprising:
a distraction instrument including an enlargeable portion with a reduced size configuration for insertion into a disc space between adjacent vertebrae and an enlarged configuration adapted to occupy a first portion of the disc space and distract the adjacent vertebrae, wherein in said enlarged configuration said enlargeable portion includes opposite vertebral endplate contacting surfaces for contacting vertebral endplates adjacent the disc space;
a material having a first condition for placement in a second portion of the disc space formed exteriorly of the enlarged enlargeable portion, said material being changeable to a second condition after placement in the second portion; and
a stabilization system attachable to the adjacent vertebrae exteriorly of the disc space.

~~57.~~ 58. (currently amended) The system of claim ~~56~~ 57, wherein said opposite vertebral endplate contacting surfaces each include a vertebral endplate contact area in the range of 0.1 square inches to 0.5 square inches with said enlargeable portion in said enlarged configuration.

RESPONSE TO RESTRICTION AND ELECTION REQUIREMENT

Serial No. 10/706,789

Attorney Docket: 4002-3449/PC466.02

Page 5 of 13

~~58.~~ 59. (currently amended) The system of claim ~~56~~ 57, wherein said enlargeable portion is removable from the disc space in said reduced size configuration.

~~59.~~ 60. (currently amended) The system of claim ~~56~~ 57, wherein said material substantially surrounds said enlargeable portion.

~~60.~~ 61. (currently amended) The system of claim ~~56~~ 57, wherein said material includes a curable cement.

~~61.~~ 62. (currently amended) The system of claim ~~56~~ 57, wherein said enlargeable portion is inflatable.

~~62.~~ 63. (currently amended) The system of claim ~~56~~ 57, wherein said distraction instrument includes a shaft defining a lumen in communication with said enlargeable portion.

~~63.~~ 64. (currently amended) The system of claim ~~56~~ 57, further comprising a second enlargeable portion including a reduced size configuration for insertion into the disc space between the adjacent vertebrae and an enlarged configuration adapted to occupy a third portion of the disc space and distract the adjacent vertebrae, wherein in said enlarged configuration said enlargeable portion includes opposite vertebral endplate contacting surfaces.

~~64.~~ 65. (currently amended) The system of claim ~~63~~ 64, wherein said second enlargeable portion defines a distraction height in said enlarged configuration that differs from a

RESPONSE TO RESTRICTION AND ELECTION REQUIREMENT

Serial No. 10/706,739

Attorney Docket: 4002-3449/PC466.02

Page 6 of 13

distraction height defined by the enlargeable portion of the distraction instrument in its enlarged configuration.

~~65.~~ 66. (currently amended) The system of claim ~~64~~ 65, wherein said second enlargeable portion comprises a distal portion of a second distraction instrument.

~~66.~~ 67. (currently amended) The system of claim ~~64~~ 65, wherein said enlargeable portions each include a banana shape and are positionable along opposite lateral sides of the disc space.

~~67.~~ 68. (currently amended) The system of claim ~~56~~ 57, wherein said enlargeable portion is removable from said material when in said second condition and further comprising a second material positionable in the first portion of the disc space.

~~68.~~ 69. (currently amended) The system of claim ~~67~~ 68, wherein said material comprises a bone cement and said second material comprises bone graft.

~~69.~~ 70. (currently amended) The system of claim ~~56~~ 57, wherein said enlargeable portion is configured to establish lordosis of the disc space.

~~70.~~ 71. (currently amended) The system of claim ~~56~~ 57, wherein each of said vertebral endplate contacting surfaces has an oval shape.

RESPONSE TO RESTRICTION AND ELECTION REQUIREMENT
Serial No. 10/706,789
Attorney Docket: 4002-3449/PC466.02
Page 7 of 13

~~71.~~ 72. (currently amended) The system of claim ~~56~~ 57, wherein each of said vertebral endplate contacting surfaces has a circular shape.

~~72.~~ 73. (currently amended) The system of claim ~~56~~ 57, wherein each of said vertebral endplate contacting surfaces has a generally rectangular shape.

~~73.~~ 74. (currently amended) The system of claim ~~56~~ 57, wherein each of said vertebral endplate contacting surfaces has a first contacting node and a second contacting node and said enlargeable portion includes a concave surface extending between said first and second contacting nodes.

~~74.~~ 75. (currently amended) The system of claim ~~56~~ 57, wherein when in said enlarged configuration said enlargeable portion is sized to contact vertebral endplates adjacent the disc space and restore the disc space to a desired disc space height, said enlargeable portion being further sized and shaped in the anterior, posterior and lateral directions to occupy the disc space and form said second portion of the disc space between the enlargeable portion and an inner wall of an annulus surrounding the disc space.

~~75.~~ 76. (currently amended) The system of claim ~~56~~ 57, wherein said stabilization system includes first and second screws engageable to respective ones of the adjacent vertebrae and a rod extending between the first and second screws.

~~76.~~ 77. (currently amended) A spinal surgical system, comprising:

RESPONSE TO RESTRICTION AND ELECTION REQUIREMENT

Serial No. 10/706,739

Attorney Docket: 4002-3449/PC466.02

Page 8 of 13

a first distraction instrument including a first enlargeable portion with a reduced size configuration for insertion into a disc space between adjacent vertebrae and an enlarged configuration adapted to occupy a first portion of the disc space and distract the adjacent vertebrae, wherein in said enlarged configuration said first enlargeable portion includes opposite vertebral endplate contacting surfaces; and

a second distraction instrument including a second enlargeable portion with a reduced size configuration for insertion into the disc space between the adjacent vertebrae and an enlarged configuration adapted to occupy a second portion of the disc space and distract the adjacent vertebrae, wherein in said enlarged configuration said second enlargeable portion includes opposite vertebral endplate contacting surfaces.

~~77.~~ 78. (currently amended) The system of claim ~~76~~ 77, wherein said second enlargeable portion defines a distraction height in its enlarged configuration that differs from a distraction height defined by said first enlargeable portion in its enlarged configuration.

~~78.~~ 79. (currently amended) The system of claim ~~77~~ 78, wherein said enlargeable portions each include a banana shape and are positionable along opposite lateral sides of the disc space with concave portions of the banana shapes oriented toward one another.

~~79.~~ 80. (currently amended) The system of claim ~~78~~ 79, wherein said concave portions form a central cavity in the disc space when said enlargeable portions are enlarged.

RESPONSE TO RESTRICTION AND ELECTION REQUIREMENT

Serial No. 10/706,789

Attorney Docket: 4002-3449/PC466.02

Page 9 of 13

~~80.~~ 81. (currently amended) The system of claim ~~76~~ 77, further comprising a material having a first condition for placement in a third portion of the disc space formed exteriorly of the enlarged enlargeable portion, said material being changeable to a second condition after placement in the third portion of the disc space.

~~81.~~ 82. (currently amended) The system of claim ~~80~~ 81, wherein said material includes a curable cement.

~~82.~~ 83. (currently amended) The system of claim ~~76~~ 77, wherein said first and second enlargeable portions are inflatable.

~~83.~~ 84. (currently amended) The system of claim ~~82~~ 83, wherein said first and second distraction instruments each include a shaft defining a lumen in communication with said enlargeable portion thereof.

~~84.~~ 85. (currently amended) The system of claim ~~76~~ 77, further comprising a stabilization system attachable to the adjacent vertebrae exteriorly of the disc space.

RESPONSE TO RESTRICTION AND ELECTION REQUIREMENT

Serial No. 10/706,739

Attorney Docket: 4002-3449/PC466.02

Page 10 of 13